New OMNIVIEW XE Features

OMNIVIEW XE now has several new features which solve the worst problem associated with the 130XE: it won't run so much of the existing ATARI software! It does this by having an ultra compatible 400/800 style OS which will copy itself into RAM, freeing up the $C000 page. In addition, OMNIVIEW XE has resident ramdisk handlers which allow you to use the extra 64K of RAM in the XE as an ultra fast disk drive. Add the other outstanding features of OMNIVIEW XE, namely, 80 column emulation under Letter/Data Perfect, BASIC, MAC65, ATR8000 CPM, etc., and the Fastchip floating point package for significantly faster math operations, and you have an outstanding value for any 130 XE owner!.

Imroved 400/800 compatibility:

(Compliments of Cal Com, 6440 Knott Ave #30, Buena Park, CA 90621)

The OMNIVIEW XE operating system runs virtually every piece of software written for the ATARI computer. Besides being coded closely to the older OSB, it also has the capability of copying itself into RAM, freeing up the $C000 page for your applications. This means 4K more RAM for programs like VISICALC, modem programs, word processors, etc. It also means compatibility with highly protected games which look for ROM in the $C000 page as a part of their misguided protection schemes (e.g., Electronic Arts).

To copy the OS into RAM (from $D800 to $FFFF), hold down the SELECT key while pressing RESET. To restore the OS to ROM, press RESET by itself. From this point on, the RAM version of the OS will be preserved, even if you switch the OS to ROM and back to RAM. Thus, any changes you may make to the OS in RAM remain in effect as long as you do not power down. In addition, if you hold down the SELECT key during powerup, the OS will be copied into RAM and it will stay in RAM even if you press RESET. Please note that the 80 column emulation is not available when running the OS out of RAM.

There are two other features designed to increase compatibility: the cursor speed and the OPTION key BASIC activation during powerup. The cursor speed is the same as the original XE OS (contrary to what our ads may say) to remain compatible with the SYNAPSE software (SYNCALC, SYNFILE, etc.) which speed up the cursor. Also, the meaning of the OPTION key during powerup is just opposite of the original OS: hold down the OPTION key to activate BASIC. This seems to be the preference of most people.

One other convenience is that CTRL-1 has been replaced by the HELP key.

Turning on 80 columns:

80 column emulation is activated from the keyboard by typing CTRL-A and hitting RESET. To return to 40 columns, type a key without CTRL and hit RESET. Don't try this if running OS in RAM.

Changing screen colors:

It is now possible to switch the screen colors in the 80 column mode by holding down the START key while typing a letter. If this does not work (as in Letter Perfect), try holding down the START key while pressing RESET. However, since this combination is also used to install the Ramdisk handlers, read the next section before using this second technique.

Installing the resident Ramdisk handlers:

The resident Ramdisk handlers in OMNIVIEW XE allow you to use the extra 64K RAM as an ultra fast 512 sector single density disk drive in conjuction with any DOS which uses standard SIO calls ($E459 and $E453) and does not hide itself underneath the cartridge or OS (e.g. ATARI 2.0S, MYDOS, SMARTDOS, etc.). In addition you will find it possible to use the Ramdisk with boot programs like Letter Perfect and Data Perfect.

The installation is simple: Type a number (1 to 8) corresponding to the drive number you wish to assign the Ramdisk, hold down the START key, and press RESET. If you do not hit a number prior pressing START/RESET, drive 1 will be assumed. In Letter/Data Perfect this combination is also used to change the screen colors, so assign the Ramdisk as drive 3 if you do not wish to use it in these environments. For example, in BASIC:

1) Type DOS to go to DOS. Now type 2 and START/RESET to install the Ramdisk as drive 2.

2) Since you are now back in BASIC, go to DOS again and format and write DOS files to drive 2.

3) Now type 1 and START/RESET to install the Ramdisk as drive 1 if you so desire.

Note that any attempt to use more than 512 sectors of the Ramdisk will result in an I/O ERROR.

OMNIVIEW XE Installation Instructions

Caution: This installation should be attempted only by a skilled technician! A chip must be desoldered which can lead to distruction of the board if not properly done. If only ATARI had used a socket for the OS chip!

1) Turn the computer upside down and loosen the 4 crosspoint screws holding the case together. Carefully turn the computer over and collect the screws as they fall out.

2) Lift off the top of the case and set it aside. Carefully unplug the keyboard and set it aside.
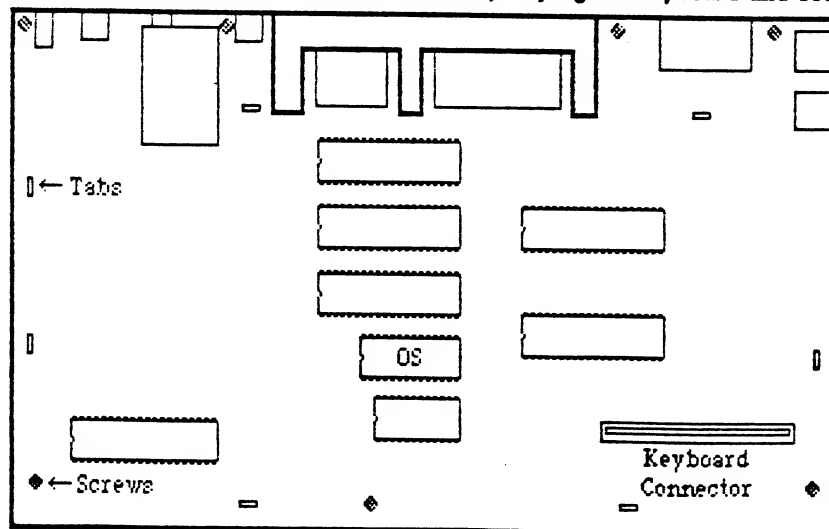
3) Straighten the 7 metal tabs around the periphery of the top shield, lift it off and set it aside.

4) Remove the 7 screws around the periphery of the motherboard and lift it out of the case.

5) The bottom shield can now easily be removed from the bottom of the motherboard. Set it aside.

6) Referring to the diagram, locate the 28 pin OS chip. Unsolder the chip. Nobody should attempt to do this unless they have a lot of soldering experience.

7) Solder a 28 pin socket in place of the OS chip and, noting the orientation of the notch, plug the OS chip back in. Test the computer by plugging the power and monitor cables back in and turning the computer on. If the screen comes up in BASIC then the socket installation was successful. Unplug the ATARI OS and plug OMNIVIEW XE in its place.

8) Complete the installation by reversing the disassembly instructions.

Use of OMNIVIEWXL with ATR8000

OMNIVIEWXL has a built in terminal emulator for use with the ATR8000 which provides a serial interface for communication with the ATR and most of the standard cursor controls necessary for operation with CPM programs. The terminal emulator, which will be referred to as 'ATRMON' from this point on, can be called up at any time and it is even possible to switch back and forth between the ATARI and CPM environments.

Turning on ATRMON

First of all you must activate the 80 column OMNIVIEWXL screen editor (e.g., with SELECT/OPTION/RESET). Then hold down the START, SELECT, and OPTION switches and type any letter on the keyboard. You should hear the drive(s) reset and the ATRMON header should appear after a couple of seconds. Now put in your CPM system disk and type 'B(return)' to boot up CPM. While ATRMON is active, the START switch will allow you to switch screen colors. [By the way, even in ATARI mode you can switch screen colors by holding down the START switch and typing any key. This also holds true of powerup, if you press the START switch after the disk boot process has begun and hold it down until the boot is finished. This allows you to change the screen colors of Letter Perfect.]

Leaving ATRMON

Leave ATRMON in almost the same way you entered it, i.e., by holding down the START, SELECT and OPTION switches, but this time it is not necessary to type another key. You will then see the command 'GOATARI' appear on the screen. This is to fetch the extrinsic command 'GOATARI.COM' which is used to reset the ATR from CPM so that the drives can once more be accessed in the ATARI environment. To create this file, use DDT as follows:

1) Under CPM, insert a disk with DDT on it and type 'DDT(return)' to enter DDT.
2) Type 'A100(return)JMP 0F000(return)(return)G0'
3) Back at the command level, type 'SAVE 1 GOATARI.COM(return)'

The short file 'GOATARI.COM' will have to be on any CPM disk from which you might want to return to the ATARI environment. The alternative is to reach behind the ATR and reset it whenever you return to the ATARI environment.

Technical Details

The ATRMON portion of OMNIVIEWXL resides in what was the diagnostic portion of the XL operating system. This gets mapped in from $5000 to $57FF whenever ATRMON is active, but is otherwise deselected. The serial input buffer starts at $5800 and runs to @MEMTOP, which points just below the 80 column screen area. The serial input buffer is as large as possible to prevent the ATR from overrunning the OMNIVIEWXL screen output, which is relatively slow compared to the serial baud rate. This however has a nice side effect: whatever was last printed to the CPM console (CON:) will remain in the buffer when you return to the ATARI mode. If, for example, you were in DOS when you went to CPM, you will return directly to DOS when you leave CPM. You could then do a binary save on memory starting at $5800 until the end of user memory if you so desire. Thus, if you had just TYPEd a text file under CPM, you would now have the text in an ATARI file. All that remains is to clean it up with a text editor. OMNIVIEWXL further simplifies the task by converting all $0D's and $0A's (CRLF's) to $00 and $9B, respectfully, when it leaves ATRMON.

ATRMON implements almost all of the CTRL codes and ESC sequences listed in the ATR8000 manual. In fact, the ones not implemented are CTRL->, ESC 7, and ESC Zn. If anyone sees a reason why these or any other features should be incorporated in the ATRMON of OMNIVIEWXL, please contact CDY Consulting (214-235-2146) and we will be happy to see about adding them.